WHAT IS CLAIMED IS:

1. A method of chemosensitization of tumor tissue comprising administration of a chemotherapeutic agent and a composition comprising cationic liposomes which consists of cationic lipid, phosphatidylcholine and cholesterol and having encapsulated therein at least one oligonucleotide.

2. A method in claim 1 wherein the oligonucleotide ranges in size from 10 to 40 nucleotides and phosphorothioated at only the end nucleotides.

3. A method in claim 1 wherein the oligonucleotide comprises 10 to 40 nucleotides and all of its bases are phosphorothioated.

4. A method in claim 1 wherein the oligonucleotide ranges in size 10 to 40 nucleotides wherein all of its bases are modified in a chimeric form.

5. A method of claim 1 wherein the oligonucleotide is administered intravenously.

6. A method of claim 1 wherein the oligonucleotide is administered directly to the target tissue.

7. A method of claim 1 wherein the oligonucleotide is administered into the arterial supply to the target tissue.

8. The composition of claim 1, wherein said oligonucleotide is an antisense DNA.

9. A method of claim 1 wherein the oligonucleotide is of the formula 5'-GTGCTCCATTGATGC-3' (SEQ ID No: 1) and only the end bases are phosphorothiotated.

10. A composition of matter comprising liposomes consisting essentially of a cationic lipid like dimethyldioctadecyl ammonium bromide (DDAB), phosphatidylcholine (PC), and cholesterol, and containing the sequence 5'-GTGCTCCATTGATGC-3' (Seq. ID No: 1) wherein only the terminal sequences are phosphorothioated.

11. A composition of matter comprising liposomes consisting essentially of a cationic lipid like dimyristoyl trimethyl ammonium propane (DMTAP), phosphatidylcholine (PC), and cholesterol, and containing the sequence 5'-GTGCTCCATTGATGC-3' (Seq. ID No: 1) wherein only the terminal sequences are phosphorothioated.

12. The method in claim 1 wherein the chemotherapeutic agent is an alkylating agent, an antimetabolite, a natural product, a hormone or an antagonist.

13. The method of claim 1 wherein the chemotherapeutic agent is a platinum coordination complex, an anthracenedione, a substituted urea, a methylhydrazine derivative, an adrenocortical suppressant, a small molecule inhibitor, a peptide, an antibody, or an tyrosine kinase inhibitor.

14. The method in claim 1 wherein the chemotherapeutic agent is epirubicin, doxorubicin, docetaxel, or paclitaxel.

15. The method in claim 1 wherein the chemotherapeutic agent is cisplatin or mitoxantrone.

16. The method in claim 1 wherein the chemotherapeutic agent is gemcitabine.

17. The method of claim 1 wherein the cancer is leukemia, lymphoma, myeloma, carcinoma or sarcoma.

18. The method of claim 1 wherein the oligonucleotide is administered before or after the chemotherapeutic agent.

19. The method of claim 1 wherein several different of oligonucleotides are administered before or after the chemotherapeutic agent.

20. The method of claim 1 wherein the oligonucleotide is administered before or after more than one chemotherapeutic agent.

21. The method of claim 1 wherein the oligonucleotide is administered before or after a combination of radiation and a chemotherapeutic agent.

22. The method of claim 1 where in more than one oligonucleotides are administered before or after a combination of radiation and a chemotherapeutic agent.